## WHAT IS CLAIMED IS:

- A wireless earphone of alternating extension and retraction functions, comprising:
   a housing having a earpiece;
- a first connection member capable of being alternatingly extended from and retracted into the housing, wherein the first connection member electrically connects the amplifier and the housing;
  - a microphone; and

15

20

an amplifier;

- a second connection member capable of alternatingly being extended from and retracted into the housing and opposite to the first connection member, wherein the second connection member electrically connects the microphone and the housing.
  - 2. The wireless earphone with alternating extension and retraction functions as claimed in claim 1, further including a first winding mechanism and a second winding mechanism both disposed inside the housing, wherein each of the first connection member and the second connection member is of a cable type for electrical connection to the first winding mechanism and the second winding mechanism, respectively.
  - 3. The wireless earphone with alternating extension and retraction functions as claimed in claim 2, wherein the first winding mechanism and the second winding mechanism are separated from each other in the housing, and the first winding mechanism and the second winding mechanism are disposed on upper and lower portions thereof, respectively.
  - 4. The wireless earphone with alternating extension and retraction functions as claimed in claim 2, wherein the first winding mechanism and the second winding mechanism are parallel to each other in the housing, and the first winding mechanism

and the second winding mechanism are disposed on two lateral portions of the housing, respectively.

5. The wireless earphone with alternating extension and retraction functions as claimed in claim 1, wherein the housing includes an orientation slot formed therein, and the amplifier includes an orientation member relating to the orientation slot for secure engagement.

5

10

- 6. The wireless earphone with alternating extension and retraction functions as claimed in claim 5, wherein the orientation member protrudes from the amplifier and is shaped as a clam, and the orientation slot is recessed from the housing to accommodate the orientation member.
- 7. The wireless earphone with alternating extension and retraction functions as claimed in claim 1, wherein the housing includes an orientation recess formed therein to accommodate the microphone.
- 8. The wireless earphone with alternating extension and retraction functions as
  claimed in claim 1, wherein the microphone is in a general or a throat vibration microphone.
  - 9. The wireless earphone with alternating extension and retraction functions as claimed in claim 1, further including a clamping member arranged on the housing.
- 10. The wireless earphone with alternating extension and retraction functions as
  20 claimed in claim 1, wherein the first winding mechanism and the second winding
  mechanism are stiff and strip-like to have a signal cable received therein.